

Attachment B

Culvert Extension Plan

GENERAL NOTES:

GENERAL: ALL MATERIAL AND WORKMANSHIP SHALL BE PER THE CURRENT AEMA MANUAL FOR RAILWAY ENGINEERS, CHAPTER 6 - THE CONSTRUCTION SPECIFICATIONS SUPPLEMENT TO THE ABOVE AEMEA MANUAL AND SHALL GOVERN.

NEW CONSTRUCTION: SHOWN IN HEAVY LINES, EXISTING STRUCTURE TO BE REMOVED SHOWN IN LIGHT DASHED LINES. EXISTING STRUCTURE TO BE REMOVED ON SURVEY DATED SEPTEMBER 2018, BY SURVEYS.

STRUCTURE STATIONING AND ELEVATIONS ARE BASED ON SURVEY.

STRUCTURE STATIONINGS, STATIONS, AND ELEVATIONS PRIORITY TO THE START OF CONSTRUCTION.

VERIFY ALL DIMENSIONS, STATIONS, AND ELEVATIONS PRIOR TO APPROVAL OF THE ENGINEER.

DESIGN DATA: LOADING, COOPER E-80 WITH DIESEL IMPACT, 4.9 FEET OF FILL, MAXIMUM GROSS SOIL PRESSURE: 35,000 PSF.

STREAM FLOW DIVERSION: IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DIVERT THE STREAM FLOW DURING CONSTRUCTION IN ORDER TO KEEP THE CONSTRUCTION AREA FREE OF WATER. THE METHOD OF DIVERSION SHALL BE APPROVED BY THE ENGINEER AND THE COST SHALL BE INCLUDED IN THE INSTALLATION OF THE

PRACTICE.
PREPARATION OF EXISTING STRUCTURE: THE EXISTING CULVERT, WHICH IS SHALL BE MOVED TO ALLOW
INSTALLATION OF THE CONCRETE COLLAR, THE INSIDE SURFACE OF THE BOX, WHICH IS SHALL BE SMOOTHED.
TO A MINIMUM DEPTH OF ONE INCHES, THE CONCRETE IS REMOVED. CONCRETE SHALL
BE REMOVED AND PROPERLY DISPOSED OF BY THE CONTRACTOR.
THE CONSTRUCTION JOINT BETWEEN THE EXISTING BOX AND THE CONCRETE COLLAR SHALL BE ABRAVED AS
CLEANED TO EXPOSE CONCRETE AGGREGATE. DIRT AND OTHER FOREIGN MATERIAL SHALL BE CLEARED OFF, AND
A CORDED CONCRETE BONDING AGENT, WHICH IS APPLIED PER THE MANUFACTURER'S INSTRUCTIONS, PREDOMINANTLY
PLACE ON THE CONCRETE COLLAR. THE CULVERT SHALL BE INSTALLED WITH TONGUE END DOWNSTREAM.
CONSTRUCTION: INSTALLATION, BACKFILL, AND ENRANKMENT SHALL BE IN ACCORDANCE WITH SECTION 5100.0
FILE BRITISH RAILWAY STANDARD CONSTRUCTION SPECIFICATIONS.

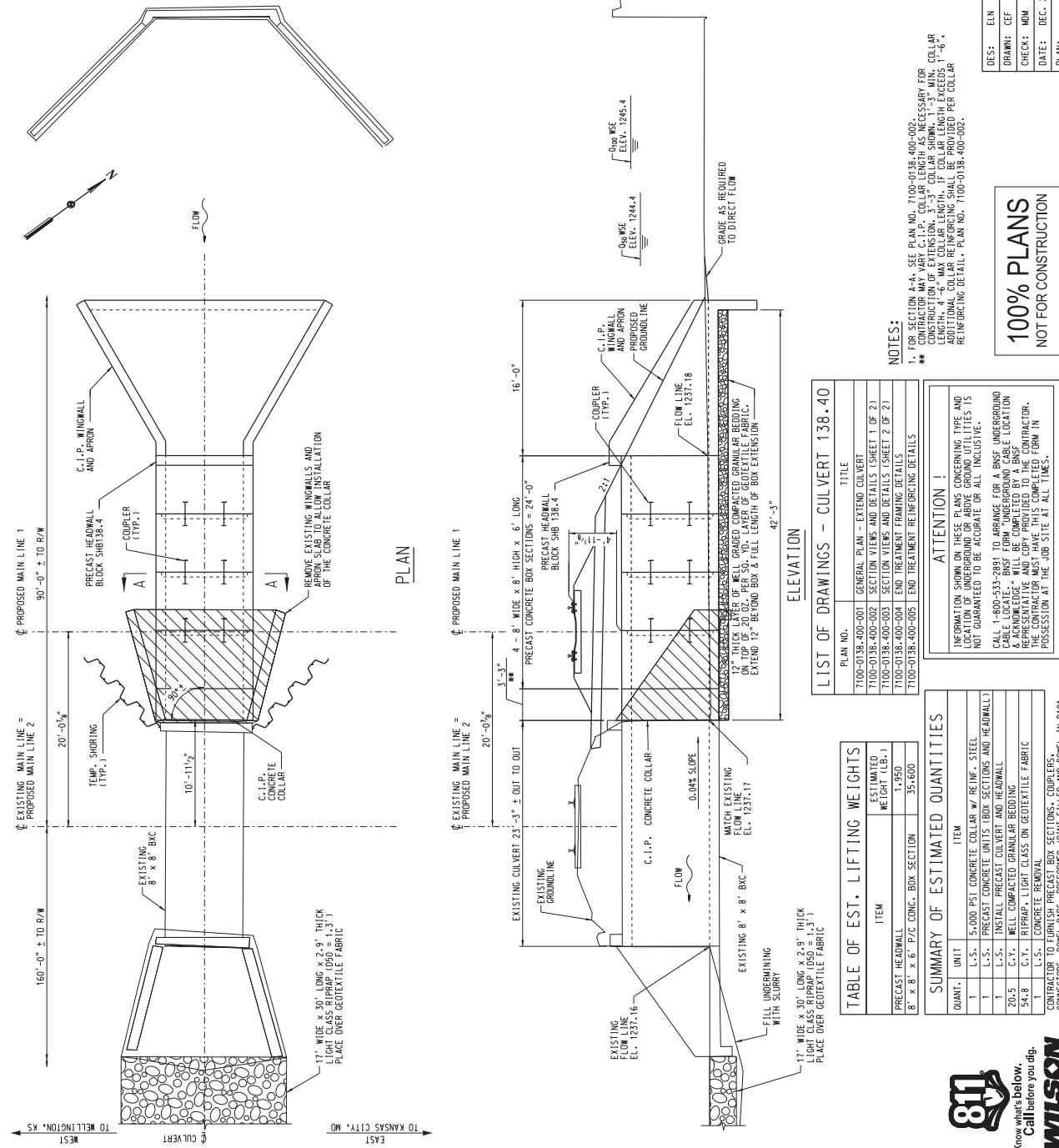
REFER TO STANDARD CONSTRUCTION SPECIFICATIONS SECTION 3200 AND SECTION 4100 FOR FILL PLACEMENT AND BACKFILL REQUIREMENTS.

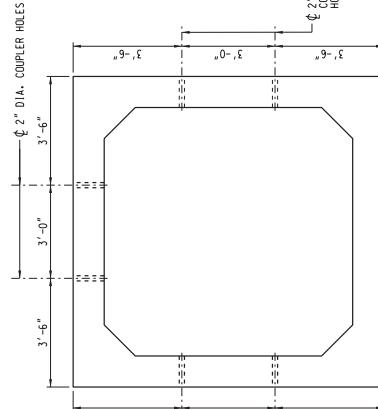
SCREEN SIZE	% PASSING (BY WEIGHT)
1 INCH	100
1½ INCH	60-90
2 INCH	20-40

RURAP: CLASS OF RURAP SHALL BE PLACED ON GEOTEXTILE FABRIC IN SUCH A MANNER AS TO AVOID SEGREGATION OF VARIOUS SIZES OF ROCK, AND DISTRIBUTED SO THAT THE ENTIRE MASS OF RURAP IS WELL-DISTRIBUTED WITHIN THE LIMITS SPECIFIED. RURAP SHALL BE PLACED OVER THE GEOTEXTILE FABRIC BY METHODS THAT DO NOT STRETCH, TEAR, PUNCTURE, OR REPOSITION THE FABRIC.

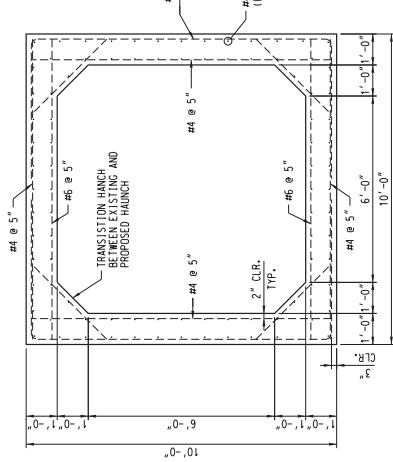
BNSF • RAILWAY
 BRIDGE ENGINEERING KANSAS CITY, KS
 9 ADDENDUM
 FABRIC. A MAXIMUM DROP HEIGHT OF 3 FEET IS RECOMMENDED.
 PRESENT AN APPEARANCE FREE OF SEDIMENTATION AND WITH A PROPORTIONATE QUANTITY OF THE LARGER PIECE
 SHOTGUN.

KANSAS CITY TO WELLINGTON
 CULVERT NUMBER 138-40
 NEAR BAZAR, KS
 GENERAL PLAN - EXTEND CULVERT



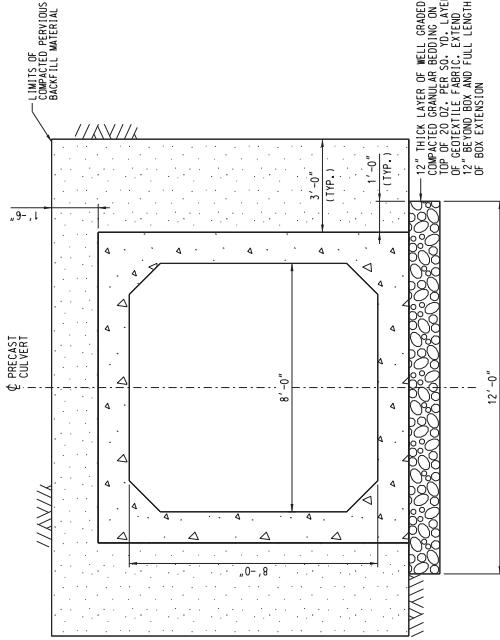


TYPICAL BOX SECTION

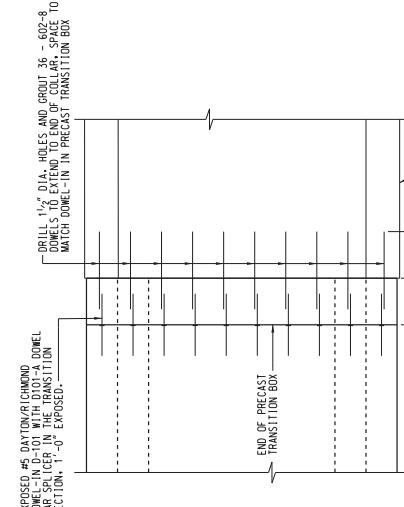


COLLAR REINFORCING DETAIL

IF THE COLLAR LENGTH IS GREATER THAN 1'-6", THE ADDITIONAL REINFORCING IN THIS DETAIL SHALL BE PROVIDED.

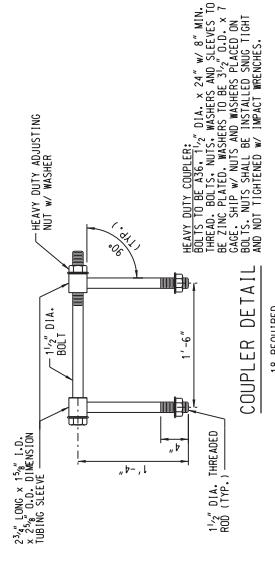


SECTION A-A



CAST-IN-PLACE CONCRETE COLLAR DETAIL

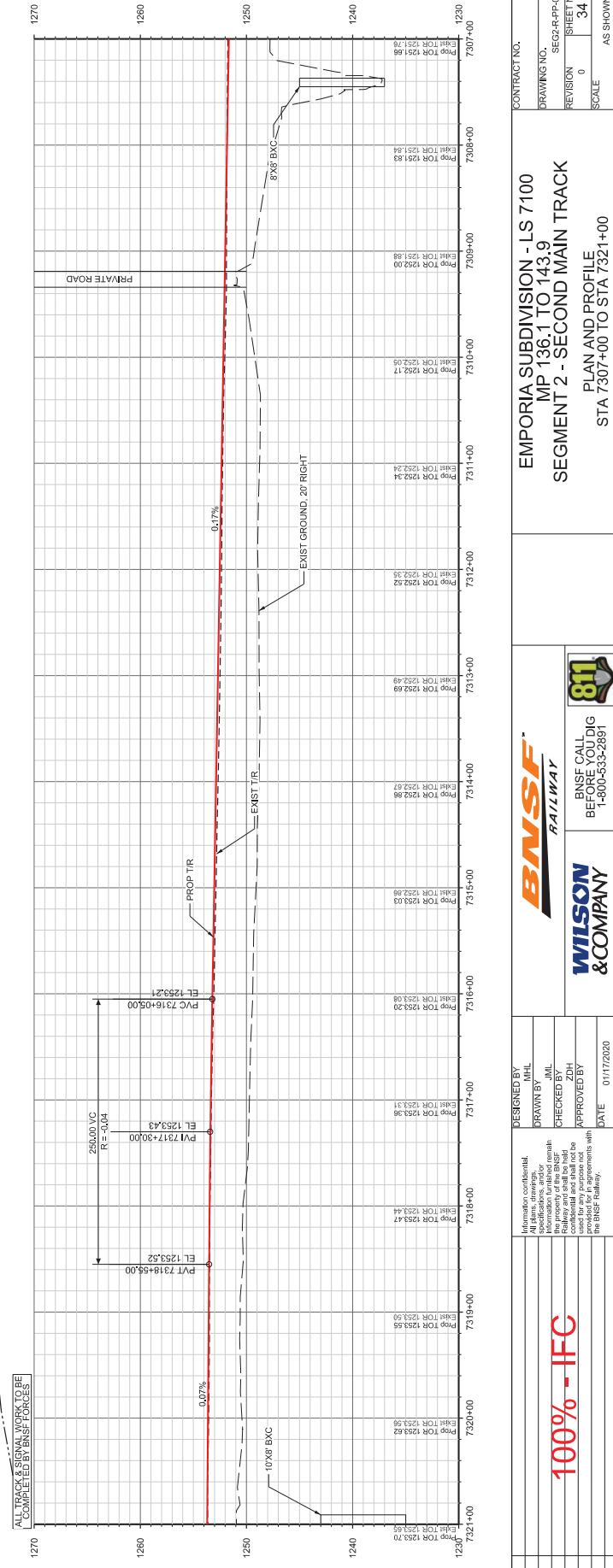
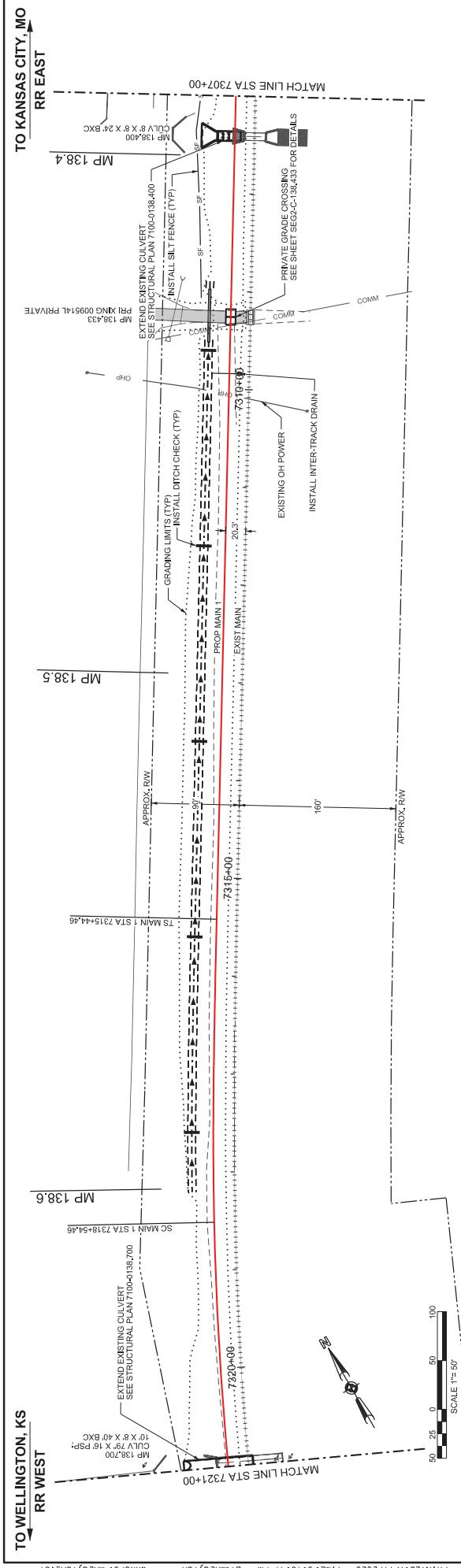
THE COLLAR SHALL TRANSITION FROM THE SHAPE OF THE TRANSITION BOX TO THE SHAPE OF THE EXISTING BOX AS APPROVED BY THE ENGINEER. IF THE COLLAR LENGTH IS GREATER THAN 1'-6", ADDITIONAL REINFORCING PER THE COLLAR REINFORCING DETAIL SHALL BE PROVIDED.



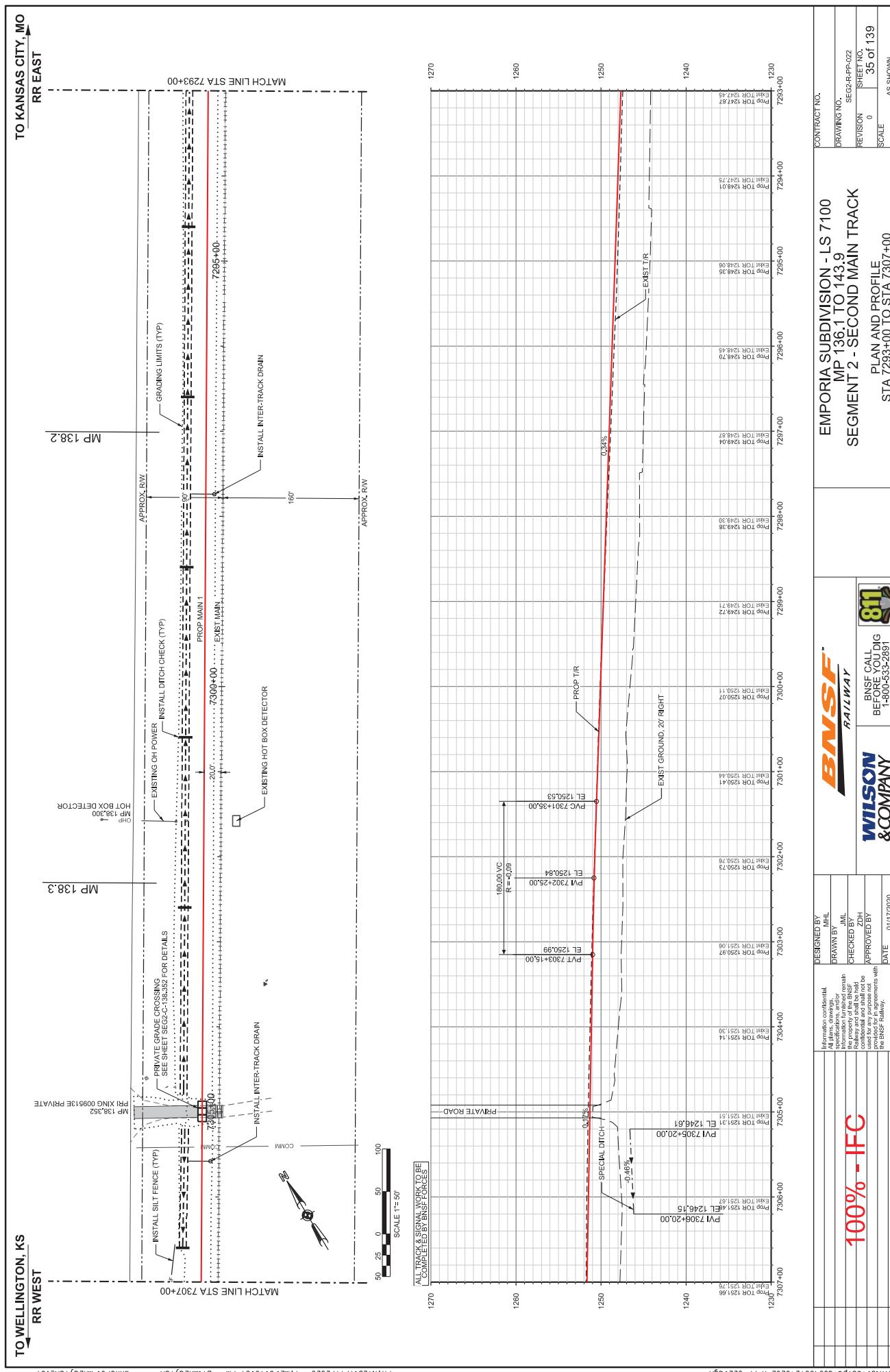
NOTE:
1. FOR LOCATION OF SECTIONS A-A, SEE PLAN NO. 7100-0138-400-001.

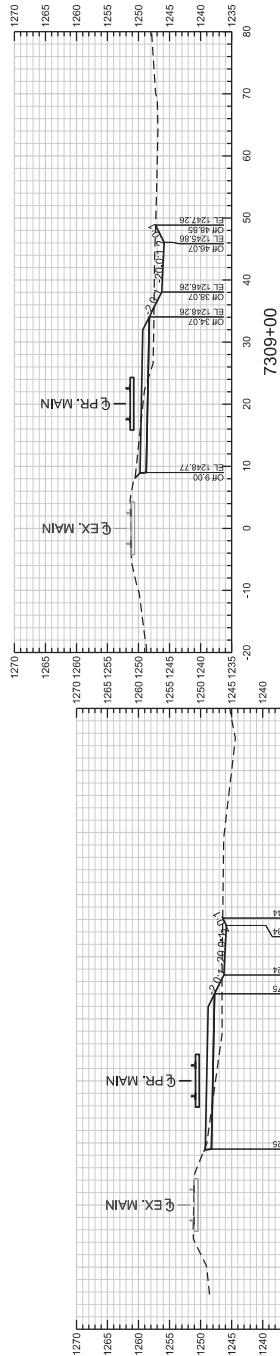
100% PLANS
NOT FOR CONSTRUCTION

DES:	ELN	KANSAS CITY TO WELINGTON
DRAWN:	CEF	CULVERT NUMBER 138.40
CHECK:	NOM	NEAR BAZAAR, KS
DATE:	DEC. 2019	SECTION VIEWS AND DETAILS (SHEET 1 OF 2)
PLAN:	BRIDGE ENGINEERING	PLAN NO: 7100-0138-400-001
APPROVED:	WILSON & COMPANY	SHEET: 2 OF 5
LIN. SEC:	7100	TIME PRINTED: 5:14



BNSF RAILWAY





PATH:C:\WC\PW\0345372\SEG2-R-XS.dgn



100%
IE

BNSE RAILWAY		WILSON & COMPANY	811
EMPORIA SUBDIVISION - LS 7100 MP 136.1 TO 143.9		SEGMENT 2 - SECOND MAIN TRACK	
STA 7304+00 TO STA 7309+00		STA 7304+00 TO STA 7309+00	
DESIGNED BY M. M. MHL	DRAWN BY JNL	CHECKED BY ZEH	APPROVED BY DATE
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01/17/2020		EV DATE	
100% - IFC		CONTRACT NO. DRAWING NO. SEG2-R-XS-020 SHEET NO. REVISION 0 SCALE 1:10	
		0 70 of 139	